

T. E. CROPPER.
Measuring-Funnels.

No. 137,182.

Patented March 25, 1873.

Fig 1

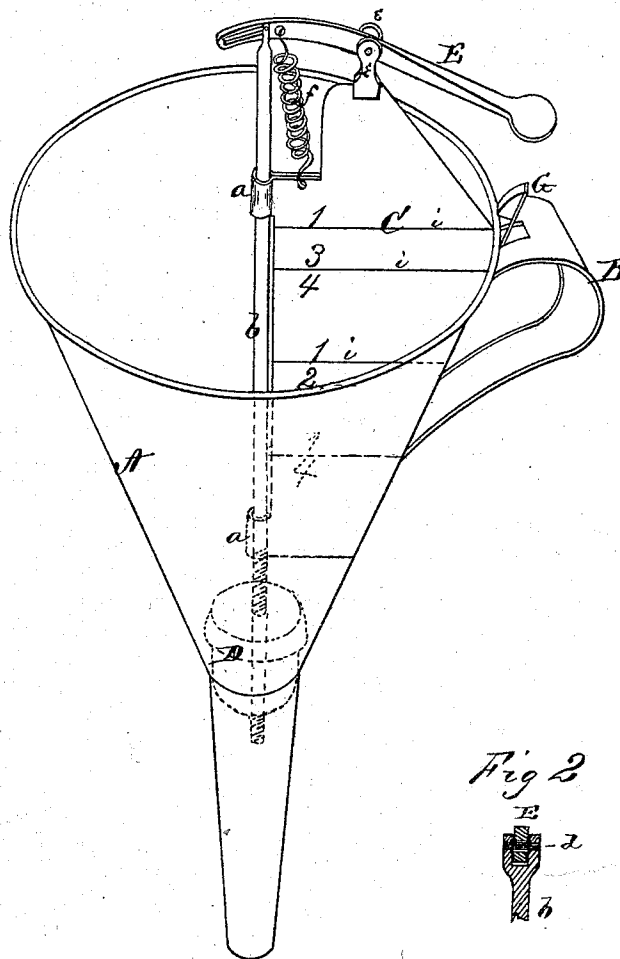
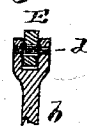


Fig 2



Witness:
Francis L. Orland
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Inventor.
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UNITED STATES PATENT OFFICE.

THOMAS E. CROPPER, OF SUFFOLK, VIRGINIA.

IMPROVEMENT IN MEASURING-FUNNELS.

Specification forming part of Letters Patent No. **137,182**, dated March 25, 1873.

To all whom it may concern:

Be it known that I, THOMAS E. CROPPER, of Suffolk, in the county of Nansemond and State of Virginia, have invented certain new and useful Improvements in Measuring-Funnel; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a measuring-funnel, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of my measuring-funnel; and Fig. 2 is an enlarged sectional view of the joint or connection between the valve-rod and the lever operating the same.

A represents an ordinary funnel provided with a handle, B, as usual, on one side. On the inside of the funnel A is attached a plate, C, which stands perpendicularly in the funnel, and extends from the side where the handle is located to or nearly to the center of the funnel. The upper edge of this plate also extends a suitable distance above the upper edge of the funnel, as shown. On the inner edge of the plate C are formed guides or loops *a a* for the passage of the rod *b*, to the lower end of which the valve D is attached. The upper end of the valve-rod *b* is forked, as shown in Fig. 2, and embraces the inner slotted end of a lever, E, a pin, *d*, passing through the prongs of said fork and through the slot in the lever, and thus forms the joint or connection between them. The lever E is pivoted between two ears, *e e*, projecting upward from the upper edge of the plate C, and be-

tween said ears and the inner end of the lever a spring, *f*, connects the same with the edge of the plate. The entire spring *f* is located above the upper edge of the funnel; and hence it cannot become clogged up with molasses, &c., which is often the case where the spring is located within the funnel below the top edge, and which prevents the valve from closing properly. The outer end of the lever E is flattened, as shown, or otherwise shaped so as to form a convenient thumb-piece, which, when pressed down to raise the valve D, catches on a spring-hook, G, attached to the outside of the funnel, and projecting through a slot in the handle, thus holding the valve open. The spring-hook G is readily released from the lever, and then the spring *f* throws the valve D down again, closing the outlet of the funnel.

The front side of the plate C is graduated to show different quantities, the graduating-marks *i i* extending entirely across the plate, so that the operator can readily see whether the funnel is in proper position for measuring or not.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The plate C, extending from one side of the funnel inward to the center, and provided with graduating-marks extending across its face, substantially as shown and described, and for the purposes set forth.

2. The combination, with a funnel, of a graduated plate, C, valve D, rod *b*, lever E, spring *f*, and spring-hook G, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of September, 1872.

Witnesses: THOS. E. CROPPER.

EDM. F. BROWN,
A. N. MARR.